

Notes on American Macrocephalinae with Descriptions of Two New Species (Hemiptera: Phymatidae)

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Abstract.—The author proposes two new taxa: *Lophoscutus schaffneri*, n. sp. (Mexico), and *L. virginensis*, n. sp. (Virgin Is.). *Macrocephalus (Lophoscutus) spiculiger* Kormilev, 1968, was put into synonymy with *Lophoscutus spiculosus* (Champion), 1898, and *Macrocephalus similis* Kormilev, 1972, was put into synonymy with *Macrocephalus dorannae* Evans, 1931, as their junior synonyms. List of species belonging to *Macrocephalus* Swederus, 1787, and *Lophoscutus* Kormilev, 1951, is given.

American Macrocephalinae have thus far 69 species distributed within 3 genera: *Extraneza* Barber, 1939, *Lophoscutus* Kormilev, 1951, and *Macrocephalus* Swederus, 1787. *Extraneza* Barber with a single species, *E. nasuta* Barber, 1939, is the most primitive, having an archaic character of three segmented fore tarsi (Macrocephalinae generally have no fore tarsi). Of the other two genera, *Lophoscutus* Kormilev is more primitive than *Macrocephalus* Swederus, having a simple, straight scutellar carina, some times slightly enlarged at base, and parameres in the shape of a simple hook. *Macrocephalus* Swederus is more advanced having the scutellar carina enlarged at basal half in the shape of a lancet, some times truncate, or even tricuspidate posteriorly, and parameres with a subapical branch.

Until 1951 all American Macrocephalinae, with the exception of *Extraneza* Barber, were assigned to *Macrocephalus*. In 1951 I separated *Lophoscutus* from *Macrocephalus* as a subgenus and in 1956 Maa and Lin elevated it to the generic rank. In 1966 Zayas again assigned all Cuban species to *Macrocephalus*, though some of them belong to *Lophoscutus*. There is still some confusion about which species belong to *Macrocephalus* and which to *Lophoscutus*. To correct this situation I give a list of species belonging to each of these genera. There is still some doubt about a few species, which I could not examine, which are indicated in the lists.

Having received more material, I could see that *Macrocephalus (Lophoscutus) spiculiger* Kormilev, 1968, is identical with *Lophoscutus spiculosus* (Champion), 1898, and should go into synonymy. The same also with *Macrocephalus similis* Kormilev, 1972, which is identical with *Macrocephalus dorannae* Evans, 1931.

In continuation two new species are described: *Lophoscutus schaffneri*, n. sp., and *L. virginensis*, n. sp.

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SPECIES BELONGING TO *LOPHOSCUTUS*

- acuñai* (Bruner), 1946
affinis (Guérin), 1843
alayoï (Zayas), 1966
angustatus (Champion), 1898
asper (Stal), 1876
aterrimus Kormilev, 1981
attenuatus (Champion), 1898
balloui (Bruner), 1926
bergrothi (Handlirsch), 1897
chemsaki Kormilev, 1984
crassimanus (Fabricius), 1803
dominicanus Kormilev, 1963
dudichi (Kormilev), 1949 (= *M. obscurus* Dudich, 1922, preoccupied)
falleni (Stal), 1862
gracilis (Handlirsch), 1897
granulatus (Champion), 1898
inaequalis (Champion), 1898
israeli (Zayas), 1966
julianus (Bruner), 1951 (= *L. drakei* Kormilev, 1962)
kormilevi (Zayas), 1966
lepidus (Stal), 1862
leucographus (Westwood), 1843
macilentus (Westwood), 1843
margaritis Kormilev, 1962
marmoratus Kormilev, 1966
micelbacheri Kormilev, 1984
mopsus (Handlirsch), 1897
paraspiculosus (Kormilev), 1953
parvulus (Handlirsch), 1897
patriciae (Zayas), 1966
prehensilis (Fabricius), 1803
productus (Barber), 1939
pulchellus (Westwood), 1843
pulcher Kormilev, 1981
rugosipes (Guérin), 1857
schaffneri Kormilev, new species
spiculissimus (Barber), 1939
spiculosus (Champion), 1898 (= *L. spiculiger* Kormilev, 1968, new synonymy)
stali (Handlirsch), 1897
subproductus Kormilev, 1962
subsimilis (Dudich), 1922
testaceus Kormilev, 1963
uhleri (Handlirsch), 1898
virginensis Kormilev, new species
viridis Kormilev, 1984
wygodzynskyi (Kormilev), 1949
 To *Lophoscutus* also probably belong:
insignis Kormilev, 1957; *insularis* Dudich, 1922; *thoracicus* Valdés, 1910

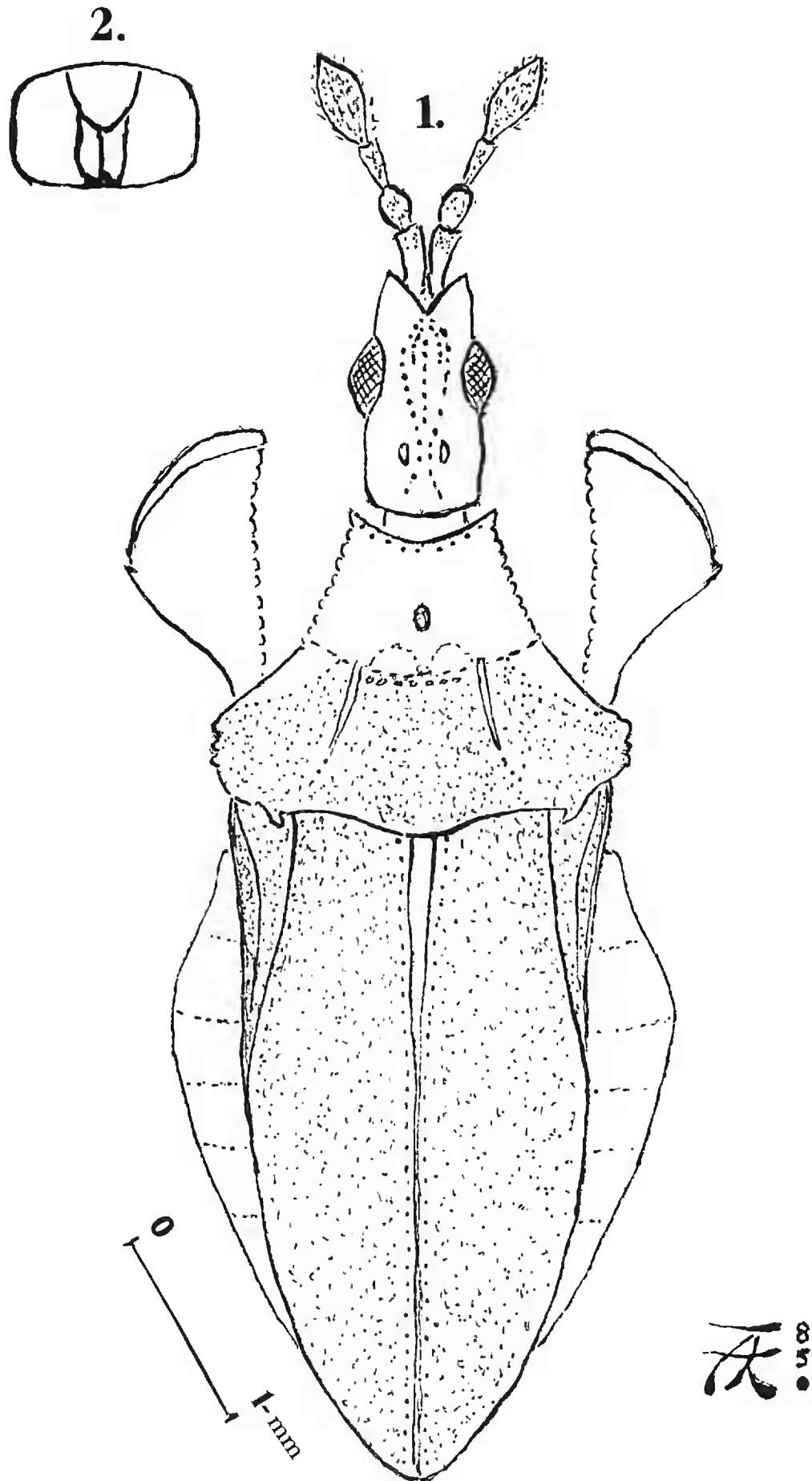
SPECIES BELONGING TO *MACROCEPHALUS*

- argentinus* Kormilev, 1951
arizonicus Cockerell, 1900
aspersus Champion, 1898
barberi Evans, 1931
cimicoides Swederus, 1787
crassus Handlirsch, 1897
dissolutus Kormilev, 1984
dollingi Kormilev, 1984
dorannae Evans, 1931 (= *M. similis* Kormilev, 1972, new syn.)
incisus Stal, 1862
manicatus (Fabricius), 1803
notatus Westwood, 1843
panamensis Champion, 1898
peruvianus Dudich, 1922
reuteri Handlirsch, 1897
tuberosus Westwood, 1843
vorax Hussey, 1953
 To *Macrocephalus* also probably belong: *vesiculosus* Handlirsch, 1897; *westwoodi* Guérin, 1857

***Lophoscutus schaffneri* Kormilev, NEW SPECIES**

(Figs. 1, 2)

Female.—Head, pronotum, pleurae, abdomen and femora with concolorous granulation; scutellum with setigerous granulation, which is lighter than background, setae very short and incumbent.



Figures 1, 2. *Lophoscutus schaffneri*, n. sp., ♀. 1. Dorsal aspect. 2. Genital segments from behind.

Head longer than its width across eyes (30:22); clypeus with a row of brown granules; similar rows flanking clypeus and extending backward between ocelli, reaching hind border of head; other granulation is concolorous. Antennae short, only $1\frac{1}{2}\times$ as long as width of head across eyes; relative length and width (in parentheses) of antennal segments I to IV are: 9(5):5(3):6(3):11(6). Relative length of labial segments I to III are: 15:12:10.

Pronotum shorter than its maximum width across lateral angles (45:57); anterior angles acute and slightly diverging; anterior border with a row of spiculoid granulation; antero-lateral-anterior borders straight, crenulate; antero-lateral-posterior borders straight then slightly rounded; lateral angles truncate, their exterior border with three small granules; postero-lateral borders rounded than sinuate; hind border rounded. Fore disk convex and granulate; interlobal depression deep. Hind disk $3 \times$ longitudinally depressed; carinae conspicuous on fore $\frac{2}{3}$, then evanescent; along fore border of hind lobe extends a transverse row of white granules; rest of granules are concolorous. Hind disk roughly punctured and with dispersed granulation; in some specimens granules are placed inside punctures.

Scutellum long and narrow (85:46), slightly constricted at base; median carina slightly enlarged at basal $\frac{1}{4}$, then thin, reaching tip of scutellum. Disk roughly punctured at base, finely punctured elsewhere; between punctures are dispersed fine, whitish, setigerous granules with very short, incumbent hairs.

Hemelytra mostly covered by scutellum; corium sparsely granulate.

Abdomen ovate, longer than its maximum width across segment III (80:66); lateral borders evenly rounded; postero-exterior angles of connexiva not protruding. Connexiva and venter granulate.

Pleurae: Fore border of propleuron sinuate and denticulate, disk densely granulate; other pleurae less granulate.

Legs: Fore femora longer than their maximum width (33:16).

Color. — Orange-yellow; hind lobe of pronotum, scutellum and corium red brown; pale yellow strip along scutellar carina.

Measurements. — Total length 6.52 mm; width of pronotum 2.28 mm; width of abdomen 2.64 mm. One paratype is smaller: 5.52, 2.00 & 2.48 mm.

Holotype. — ♀, MEXICO, Oaxaca, 11.3 mi SE Totalapan, 21.VII.74; Clark, Murray, Ashe and Schaffner, coll.; deposited at the Department of Entomology, National Museum of Natural History, Smithsonian Institution, Washington, D.C.

Paratypes. — 1 ♀, MEXICO, Puebla, 11.8 mi NW Iruca, 15.VII.74; Clark, Murray, Ashe and Schaffner, coll.; 2 ♀, MEXICO, 13.3 mi NE Tehuizingo, 13–14.VII.74; same collectors; 1 ♀, MEXICO, Morelos, 10 mi E Cuernavaca, 8.VII.74; same collectors; deposited at the Department of Entomology, Texas A&M University, College Station, Texas and Kormilev collection.

It is a pleasure to dedicate this species to one of its collectors Dr. Joseph C. Schaffner.

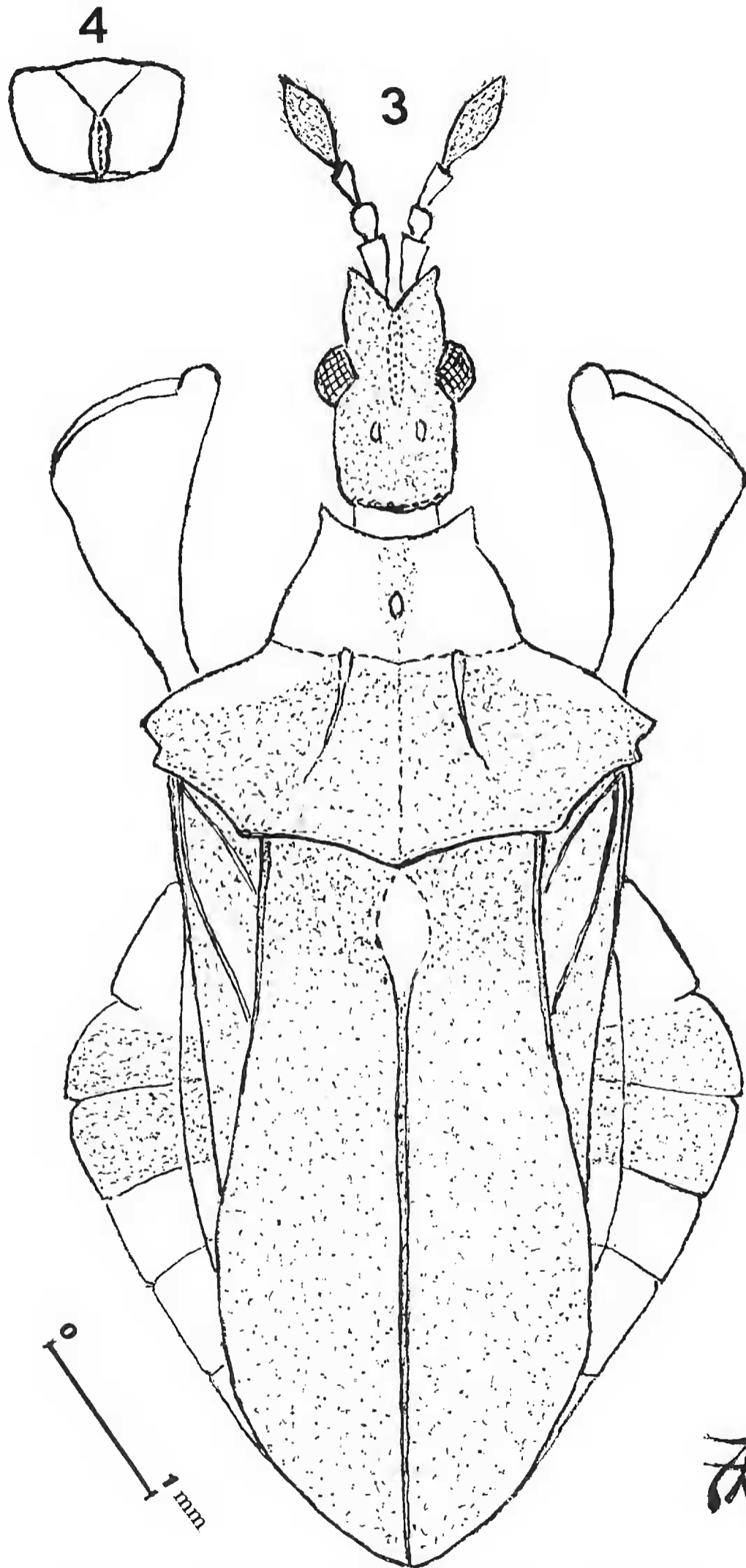
Lophoscutus schaffneri, n. sp. is related to *L. margaritis* Kormilev, 1962, also from Mexico, but is smaller, the scutellum more constricted at base and with setigerous granulation; the antennae relatively shorter and the color is different.

Lophoscutus virginensis Kormilev, NEW SPECIES

(Figs. 3, 4)

Female. — Elongate ovate; head posteriorly and laterally, fore lobe of pronotum anteriorly, laterally and at the base of carinae, with fine, white granulation; a few fine, white scattered granules on connexivum, pro- and mesopleuron. Mesosternal cross granulate on fore branch. Hind lobe of pronotum and base of scutellum roughly punctured, rest of scutellum finely punctured.

Head longer than its width across eyes (33:22); ocelli placed nearer to eyes than to hind border of head; genae rounded anteriorly; bucculae with two flaps. An-



Figures 3, 4. *Lophoscutus virginensis*, n. sp., ♀. 3. Dorsal aspect. 4. Genital segments from behind.

tennae thin, $1\frac{1}{2}\times$ as long as width of head across eyes (34.5:22); relative length and width of antennal segments I to IV are: 8(5):5(3):7(3):15(6). Relative length of labial segments I to III are: 18:12:7.

Pronotum short and wide (48:72); fore border sinuate and with white granulation; anterior angles spiculoid and slightly diverging; antero-lateral-anterior borders slightly convex and finely granulate; antero-lateral-posterior borders slightly convex; lateral angles incised, forming two teeth; postero-lateral borders sinuate; posterior border convex medially, sinuate laterally. Fore lobe convex, interlobal depression clearly visible; carinae raised and granulate at base, then diverging in an arc, evanescent posteriorly.

Scutellum tongue-shaped, longer than its maximum width at $\frac{2}{3}$ of its length (95:50); median carina raised and enlarged at base, then depressed, forming an ovate, yellow callosity and produced backward as a narrow, straight carina, reaching tip of scutellum. At base of median carina a few white granules; rest of scutellum with dispersed, light granulation. Disk roughly punctured at base, finer elsewhere.

Hemelytra mostly covered by scutellum; corium with a few scattered granules.

Abdomen cordate, shorter than its maximum width across segment III (90:92); connexiva II and III semifused; lateral borders straight at II, convex at III, straight from IV to VII; hind border (VIII) rounded; postero-exterior angles of connexiva slightly protruding on II and III, not protruding from IV to VII.

Legs: Fore femora longer than their maximum width (45:22); disk granulate on upper border.

Color.—Head, hind lobe of pronotum, corium and transverse band of abdomen testaceous; base of scutellum red brown laterad of median yellow spot; fore lobe of pronotum, connexivum before and behind transverse band and ventral side of the body, yellow; legs and labium yellow with greenish tinge; antennal segments I to III yellow, IV dark brown.

Measurements.—Total length 7.20 mm; width of pronotum 2.98 mm; width of abdomen 3.68 mm.

Holotype.—♀, VIRGIN ISLANDS, St. Thomas, Frenchman's Bay, 2 mi (3 km) E Charlotte-Amalia, 16.VII.1979; C. B. Marsha, coll., deposited at the California Academy of Sciences, San Francisco; Type No. 15181.

Lophoscutus virginensis, n. sp. is closely related to *L. subproductus* Kormilev, 1962, from Puerto Rico, but is larger, the abdomen wider than long, granulation very scarce, the color is different, and the transverse band of the abdomen is testaceous, not orange with a carmine tinge.

ACKNOWLEDGMENTS

I express my sincere gratitude to Dr. Paul H. Arnaud, Jr., Curator of Entomology at the California Academy of Sciences, San Francisco, and Dr. Joseph C. Schaffner, Professor at the Department of Entomology, Texas A&M University, College Station, Texas, for the privilege to study Macrocephalinae under their care.

I am also indebted to Dr. Thomas E. Moore, Museum of Zoology, the University of Michigan, Ann Arbor, Michigan, for the loan of the holotype of *Macrocephalus vorax* Hussey, 1953, and to Dr. Tamás Vásárhelyi, Hungarian National Museum, Budapest, Hungary, for sending me photos of *Macrocephalus insularis* Dudich, 1922, that permitted me to place them into appropriate genus.

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PAN-PACIFIC ENTOMOLOGIST
62(4), 1986, pp. 310

Scientific Note

Early Seasonal Records for Three Halictine Bees on *Isomeris arborea* in Southern California (Hymenoptera: Apoidea)

On December 25, 1985, between 0930 and 1000 PST, my wife and I collected 12 native bees visiting *Isomeris arborea* (sometimes known as "bladder pod"), near Desert Hot Springs, Riverside County, California, on the mountain slopes opposite Palm Springs. This was the only plant species in bloom at the time and the flowers were densely populated with honeybees, making the native species, all small halictines, very difficult to see and capture.

Isomeris is an attractive nectar plant which, in the desert, presumably blooms whenever it rains. However, published records of bees taking pollen from it are lacking. Of 23 species recorded by Hurd (1979) as visitors to this plant (9 andrenids, 1 halictid, 3 megachilids, 7 anthophorids), all are polylectic or oligoleges of some other plant (Hurd does not include the sex of the bees in his records) (additional data are presented by Moldenke and Neff (1974)). It may be of interest, therefore that the three species of halictines making up our sample (kindly identified by George C. Eickwort), included two that were gathering pollen. Of six females of *Dialictus microlepidoides* (Ellis), each was carrying substantial loads of pollen, and the single female of *Evyllaenus amicus* (Cockerell) had just begun to pack pollen near the bases of the hind legs. The five females of *Evyllaenus pulveris* (Cockerell) were taking only nectar and had no evidence of pollen on the body.

As far as known, these are the earliest seasonal records for these presumably polylectic species of bees, as well as verified pollen sources for two.

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